



ATT: HIS HIGHNESS, MR V. NAIKEN

Ministry of Civil Service Affairs and Administrative Reforms

15

15 April, 2003

Circular Letter No. 15 of 2003

F/152/24/16

From: Secretary for Public Service Affairs

To: Supervising Officers in charge of Ministries/Departments

**Guidelines for the Safe Use of Photocopying Machines**

In line with Government policy to ensure the safety and health of public officers in the workplace, the Occupational Safety and Health Unit of this Ministry proposes to issue, periodically, guidelines on occupational safety and health matters which will be posted on this Ministry's web-site ([civser@mail.gov.mu](mailto:civser@mail.gov.mu)).

2. As you are aware, the Occupational Safety, Health and Welfare Act places the onus on the employer to provide and maintain, as far as is reasonably practicable, a working environment which is safe and without risks to health to its officers.
3. Guidelines for the safe use of photocopying machines are enclosed. In this connection, you are requested to take any remedial action accordingly. These guidelines should be brought to the attention of:
  - (i) all the officers who make use of photocopying machines;
  - (ii) the officer/s designated to look after the welfare of staff; and
  - (iii) the officer responsible for the purchase of office equipment.
4. Any further information on the subject should be addressed to the Occupational Safety and Health Unit of this Ministry, Royal Road, Atom House, Port Louis.

(D.P. Ruhee)

Secretary for Public Service Affairs

Copy to: Secretary to Cabinet and Head of the Civil Service

Annex to Circular Letter No. 15 of 2003

**MINISTRY OF CIVIL SERVICE AFFAIRS AND  
ADMINISTRATIVE REFORMS**

**Occupational Safety and Health Unit Guidelines No.1 of 2003**

**Guidelines for the safe use of Photocopying Machines**

Photocopiers are used widely in offices in most Ministries/Departments. Queries have been raised as to the health risks associated with their use. Generally, photocopying machines may be operated without any detrimental effect to health by following a few basic principles. However, discomfort or health effects may arise if machines are poorly sited, poorly maintained or used by operators continuously for long periods.

*Health effects associated with the operation of photocopying machines are:*

- ☞ Ozone: it is recognized that photocopiers may produce small amounts of ozone during operations. If present in sufficient quantities it can irritate the skin, throat and nasal passages.
- ☞ Toner materials: toners contain a colouring agent called carbon black and resins. Toner dust released from dry photocopying machines may irritate the nose and throat resulting in coughing and sneezing.
- ☞ Selenium and Cadmium: the photoconductive material in photocopiers is usually selenium. However cadmium sulphide, zinc oxide and organic polymers are also used. However, both selenium and cadmium are suspected carcinogens and overexposure should therefore be avoided. Trace amounts of the material, when airborne may irritate the skin, throat and nasal passages.

- ☐ **Heat:** burns from hot components may occur during certain operations such as paper misfeed. Heat generated by photocopiers can be a source of discomfort.
- ☐ **Light:** photocopiers make use of fluorescent, metal halide or quartz lamps. It is generally agreed that ultraviolet light does not pass through the document glass. However, discomfort from the intensity of light may be avoided by closing the document cover.
- ☐ **Musculo-skeletal discomfort:** musculo-skeletal discomfort may arise from continuous photocopying activities. Repetitive postures may lead to muscular fatigue.

### *Prevention of Hazards to Health*

The following steps should be taken to ensure, as far as practicable, a risk free operation:

#### ☐ **Location of photocopying equipment:**

In order to avoid a built-up of contaminants such as solvent vapours, ozone, or dust, photocopying machines should be located in a well ventilated area with proper ventilation (open windows, louvres or doors).

Where photocopying machines are located in a closed room and used frequently, the room may need mechanical ventilation.

Where high volume photocopying machines are used, it may be necessary to place them in a room separate from other work areas.

#### ☐ **Maintenance of equipment**

Frequent maintenance of photocopying machines can control the ozone emission. Photocopying machines fitted with certain types of ozone filters provide efficient decomposition of most of the ozone to oxygen. Studies have shown that the servicing of photocopying machines can reduce the emission of ozone by 80%. The amount of ozone per copy gradually returns to pre-servicing levels after 3000 copies. Therefore, it is highly recommended that servicing arrangements be made after 3000

copies effected by the machines (Australian Services Union, Health and Safety Factsheet).

Besides observing this limit of copies, regular maintenance of photocopying machines should be scheduled to control release of contaminants due to poorly operating equipment. Maintenance logbooks should be kept for each machine and be available for monitoring purposes.

- ☞ Materials safety data sheets (MSDS) should be requested from suppliers of photocopying machines on chemicals used in the photocopying machines. It should be ensured that the chemicals are handled in accordance with the requirements set out in the MSDS.

*All chemicals (developers and toners) used in photocopiers should be clearly labelled as to contents and be used and stored strictly in accordance with the manufacturer's recommendations.*

*Those responsible for replenishing photocopying machines with chemicals should wear the appropriate Personal Protective Equipment (PPE) as specified by the MSDS and any other PPE recommended by the chemical manufacturer.*

- ☞ Disposal of toner

Precautions should be taken when filling the machine or removing spent-toner. Spent-toner should be disposed of in sealed containers and not emptied into office waste bins. Operators should avoid skin contact with dust. Any built-up of toner dust on the paper indicates that the machine is faulty or needs servicing.

- ☞ When purchasing a photocopying machine, preference should be given to equipment with:

Low ozone emission specifications or ozone filters.

Containerized toner systems and automatic shut down devices on waste toner compartments to reduce dust emissions.